

IN THE CLAIMS:

Please amend claim 1 and add new claims 2-68, as indicated in the complete listing of claims provided below.

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(currently amended) A Host Computer computer system that directs information to first software associated with a peripheral device connected to a port of a remote device in response to a request from the remote device, which modifies the first software modifying this information to generate control information to be recognized by the peripheral device, and transmits it and transmitting the control information to a connecting port capable of interfacing with the peripheral device, to be the control information being intercepted by another second software unit which diverts it to a the remote device, that which directs it the control information to the peripheral device connected to same remote device, such that a two way two-way communication channel is provided between the Host Computer computer and the peripheral device through the port of the remote device to allow data to be sent between them and to allow the computer system to operate the peripheral device using the control information.

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2. (new) A method to operate a peripheral device, the method comprising:
receiving at a server an instruction from a remote device to operate the peripheral device, the peripheral device being connected to a port of the remote device;
in response to the instruction, the server:
generating control information recognizable by the peripheral device when applied onto the port; and
communicating the control information to the remote device for applying onto the port of the remote device to operate the peripheral device under control of the server.

3. (new) The method of claim 2, wherein the remote device contains no software device driver for the peripheral device connected to the port of the remote device.

4. (new) The method of claim 3, wherein the remote device has no running operating system.

5. (new) The method of claim 2, further comprising:
generating at the server an image showing options to operate the peripheral device;
transmitting the image from the server to the remote device for display;
receiving at the server from the remote device data specifying user input relative to the image; and
applying at the server one or more options to operate the peripheral device according to the data specifying the user input relative to the image.

6. (new) The method of claim 2, wherein a two-way communication channel is established for communication between the server and the peripheral device through the port of the remote device to operate the peripheral device under the control of the server.

7. (new) The method of claim 6, wherein the peripheral device comprises a scanner.

8. (new) The method of claim 6, wherein the peripheral device comprises a printer.

9. (new) The method of claim 8, wherein the instruction from the remote device requests to print a document; and, the server generates the control information according to the document for printing using the printer.

10. (new) The method of claim 2, wherein the configuration information is transmitted to the remote device via a wireless connection.

11. (new) The method of claim 2, further comprising:
receiving at the server a request from the remote device for a document;
rendering at the server the entire document into an image; and
transmitting the image in a compressed format from the server to the remote device for display;
wherein the instruction from the remote device is in connection with the image.

12. (new) The method of claim 11, wherein the peripheral device comprises a printer; and, the instruction comprises a print command to print the document.

13. (new) The method of claim 11, wherein the document represents a web page having links; and, said transmitting the image comprises:
dividing the image into a plurality of sections;
compressing the plurality of sections into a plurality of compressed sections respectively; and
transmitting the plurality of compressed sections to the remote device in a sequence according to a display priority.

14. (new) The method of claim 11, wherein the document contains displayable information in a non-image format; a portion of the image is rendered from the displayable information; and, the image is larger than a display area of the remote device.

15. (new) A method to operate a peripheral device, the method comprising:
sending from a remote device to a server an instruction to operate the peripheral device, the peripheral device being connected to a port of the remote device;
and
establishing a communication channel to receive control information from the server for applying onto the port of the remote device to operate the peripheral device under control of the server, the control information being generated at the server and recognizable by the peripheral device when applied onto the port.

16. (new) The method of claim 15, wherein the remote device contains no software device driver for the peripheral device connected to the port of the remote device.

17. (new) The method of claim 16, wherein the remote device has no running operating system.

18. (new) The method of claim 15, further comprising:
receiving an image from the server showing options to operate the peripheral device;
displaying the image on the remote device;

receiving user input relative to the image displayed on the remote device; and transmitting, from the remote device to the server, data specifying the user input relative to the image for the server to apply one or more options according to the data to operate the peripheral device.

19. (new) The method of claim 15, wherein a two-way communication channel is established for communication between the server and the peripheral device through the port of the remote device to operate the peripheral device under the control of the server.

20. (new) The method of claim 19, wherein the peripheral device comprises a scanner.

21. (new) The method of claim 15, wherein the peripheral device comprises a printer.

22. (new) The method of claim 21, wherein the instruction from the remote device requests to print a document; and, the server generates the control information according to the document for printing on the printer.

23. (new) The method of claim 15, wherein the configuration information is transmitted to the remote device via a wireless connection.

24. (new) The method of claim 15, further comprising:
sending from the remote device to the server a request for a document;

receiving at least a first section of an image in a compressed format from the server at the remote device for display, the image being rendered at the server from the entire document; and

displaying at the remote device the first section of the image;

wherein the instruction from the remote device is in connection with the image.

25. (new) The method of claim 24, wherein the peripheral device comprises a printer; and, the instruction comprises a print command to print the image.

26. (new) The method of claim 24, further comprising:

automatically receiving wirelessly at the remote device a second section of the image from the server after said displaying, the second section being outside a display area of the remote device when the first section of the image is displayed in the display area of the remote device; and

storing the second section of the image in the remote device.

27. (new) A server to operate a peripheral device, the server comprising:

means for receiving an instruction from a remote device to operate the peripheral device, the peripheral device being connected to a port of the remote device;

means for generating control information which is recognizable by the peripheral device when applied onto the port; and

means for communicating the control information to the remote device for applying onto the port of the remote device to operate the peripheral device under control of the server in response to the instruction.

28. (new) The server of claim 27, wherein the server contains a device driver to generate the control information.

29. (new) The server of claim 27, further comprising:
means for generating an image showing options to operate the peripheral device;
means for transmitting the image to the remote device for display;
means for receiving from the remote device data specifying user input relative to the image; and
means for applying one or more options to operate the peripheral device according to the data specifying the user input relative to the image.

30. (new) The server of claim 27, wherein a two-way communication channel is established for communication between the server and the peripheral device through the port of the remote device to operate the peripheral device under the control of the server.

31. (new) The server of claim 30, wherein the peripheral device comprises a scanner.

32. (new) The server of claim 30, wherein the peripheral device comprises a printer.

33. (new) The server of claim 32, wherein the instruction from the remote device requests to print a document; and, the server generates the control information according to the document for printing on the printer.

34. (new) The server of claim 27, wherein the configuration information is transmitted to the remote device via a wireless connection.

35. (new) The server of claim 27, further comprising:
means for receiving a request from the remote device for a document;
means for rendering the entire document into an image; and
means for transmitting the image in a compressed format to the remote device for display;
wherein the instruction from the remote device is in connection with the image.

36. (new) The server of claim 35, wherein the peripheral device comprises a printer; and, the instruction comprises a print command to print the document.

37. (new) A portable device to operate a peripheral device, the portable device comprising:
means for sending to a remote server an instruction to operate the peripheral device, the peripheral device being connected to a port of the portable device; and
means for establishing a communication channel to receive control information from the remote server for applying onto the port of the portable device to operate the peripheral device under control of the remote server, the control information being generated at the remote server and recognizable by the peripheral device when applied onto the port.

38. (new) The portable device of claim 37, wherein the portable device contains no software device driver for the peripheral device connected to the port of the portable device.

39. (new) The portable device of claim 38, wherein the portable device has no running operating system.

40. (new) The portable device of claim 37, further comprising:
means for receiving an image from the remote server showing options to operate the peripheral device;
means for displaying the image on the portable device;
means for receiving user input relative to the image displayed on the portable device;
and
means for transmitting, from the portable device to the remote server, data specifying the user input relative to the image for the remote server to apply one or more options according to the data specifying the user input relative to the image.

41. (new) The portable device of claim 37, wherein a two-way communication channel is established for communication between the remote server and the peripheral device through the port of the portable device to operate the peripheral device under the control of the remote server.

42. (new) The portable device of claim 41, wherein the peripheral device comprises a printer; the instruction from the portable device requests to print a document; the

remote server generates the control information according to the document for printing on the printer.

43. (new) The portable device of claim 42, wherein the configuration information is transmitted to the portable device via a wireless connection.
44. (new) A machine readable medium containing executable computer program instructions which when executed by a data processing system cause said system to perform a method to operate a peripheral device, the method comprising:
receiving at a server an instruction from a remote device to operate the peripheral device, the peripheral device being connected to a port of the remote device;
in response to the instruction, the server:
generating control information recognizable by the peripheral device when applied onto the port; and
communicating the control information to the remote device for applying onto the port of the remote device to operate the peripheral device under control of the server.
45. (new) The medium of claim 44, wherein the server contains a software device driver to generate the control information to operate the peripheral device; and, the remote device contains no software device driver for the peripheral device connected to the port of the remote device.
46. (new) The medium of claim 45, wherein the remote device has no running operating system.

47. (new) The medium of claim 44, wherein the method further comprises:
generating at the server an image showing options to operate the peripheral device;
transmitting the image from the server to the remote device for display;
receiving at the server from the remote device data specifying user input relative to
the image; and
applying at the server one or more options to operate the peripheral device according
to the data specifying the user input relative to the image.

48. (new) The medium of claim 44, wherein a two-way communication channel is
established for communication through the port of the remote device between the
server and the peripheral device to operate the peripheral device under the control of
the server.

49. (new) The medium of claim 48, wherein the peripheral device comprises a scanner.

50. (new) The medium of claim 48, wherein the peripheral device comprises a printer.

51. (new) The medium of claim 50, wherein the instruction from the remote device
requests to print a document; and, the server generates the control information
according to the document for printing on the printer.

52. (new) The medium of claim 44, wherein the configuration information is transmitted
to the remote device via a wireless connection.

53. (new) The medium of claim 44, wherein the method further comprises:
receiving at the server a request from the remote device for a document;
rendering at the server the entire document into an image; and
transmitting the image in a compressed format from the server to the remote device
for display;
wherein the instruction from the remote device is in connection with the image.

54. (new) The medium of claim 53, wherein the peripheral device comprises a printer;
and, the instruction is a print command to print the document.

55. (new) The medium of claim 53, wherein the document represents a web page having
links; and said transmitting the image comprises:
dividing the image into a plurality of sections;
compressing the plurality of sections into a plurality of compressed sections
respectively; and
transmitting the plurality of compressed sections to the remote device in a sequence
according to a display priority.

56. (new) The medium of claim 53, wherein the document contains displayable
information in a non-image format; a portion of the image is rendered from the
displayable information; and, the image is larger than a display area of the remote
device.

57. (new) A machine readable medium containing executable computer program instructions which when executed by a data processing system cause said system to perform a method to operate a peripheral device, the method comprising:
sending from a remote device to a server an instruction to operate the peripheral device, the peripheral device being connected to a port of the remote device;
and
establishing a communication channel to receive control information from the server for applying onto the port of the remote device to operate the peripheral device under control of the server, the control information being generated at the server and recognizable by the peripheral device when applied onto the port.

58. (new) The medium of claim 57, wherein the remote device contains no software device driver for the peripheral device connected to the port of the remote device.

59. (new) The medium of claim 58, wherein the remote device has no running operating system.

60. (new) The medium of claim 57, wherein the method further comprises:
receiving an image from the server showing options to operate the peripheral device;
displaying the image on the remote device;
receiving user input relative to the image displayed on the remote device; and

transmitting, from the remote device to the server, data specifying the user input relative to the image for the server to apply one or more options according to the data specifying the user input relative to the image.

61. (new) The medium of claim 57, wherein a two-way communication channel is established for communication between the server and the peripheral device through the port of the remote device to operate the peripheral device under the control of the server.
62. (new) The medium of claim 61, wherein the peripheral device comprises a scanner.
63. (new) The medium of claim 57, wherein the peripheral device comprises a printer.
64. (new) The medium of claim 63, wherein the instruction from the remote device requests to print a document; and, the server generates the control information according to the document for printing on the printer.
65. (new) The medium of claim 57, wherein the configuration information is transmitted to the remote device via a wireless connection.
66. (new) The medium of claim 57, wherein the method further comprises:
sending from the remote device to the server a request for a document;
receiving at least a first section of an image in a compressed format from the server at the remote device for display, the image being rendered at the server from the entire document; and

displaying at the remote device the first section of the image;
wherein the instruction from the remote device is in connection with the image.

67. (new) The medium of claim 66, wherein the peripheral device comprises a printer;
and, the instruction comprises a print command to print the image.

68. (new) The medium of claim 66, wherein the method further comprises:
automatically receiving wirelessly at the remote device a second section of the image
from the server after said displaying, the second section being outside a
display area of the remote device when the first section of the image is
displayed in the display area of the remote device; and
storing the second section of the image in the remote device.